SEQUENCE LISTING

<110>   Turck, Jutta
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acgaaggtaa cccacagtga ctcacaccac aagtactaga atgcaagctg ttgcggtgag   240

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acc acc acc gac acc ggc ccc aag ccg ggc agt gag gcc gcc gcc ctg        345
Thr Thr Thr Asp Thr Gly Pro Lys Pro Gly Ser Glu Ala Ala Ala Leu
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ctc gcc aat gtc cgc acc tcg ggg gcg cgg ctg tcc tcc gcg ttg tac        393
Leu Ala Asn Val Arg Thr Ser Gly Ala Arg Leu Ser Ser Ala Leu Tyr
            20                  25                  30

gac att ctg aag aac cgg ctg ctc gaa ggg cgc tat gcg gca ggc gag        441
Asp Ile Leu Lys Asn Arg Leu Leu Glu Gly Arg Tyr Ala Ala Gly Glu
        35                  40                  45

aag atc gtc gtc gag tcg atc cgg caa gag ttc ggg gtg agc aag cag        489
Lys Ile Val Val Glu Ser Ile Arg Gln Glu Phe Gly Val Ser Lys Gln
50                  55                  60                  65

ccc gtc atg gac gct ctg cgc cgc ctg tcc agc gac aag ctg gtc cac        537
Pro Val Met Asp Ala Leu Arg Arg Leu Ser Ser Asp Lys Leu Val His
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atc gtt ccc cag gtc ggt tgc gag gtc gtc tcc tac gcc ccg cgc gaa        585
Ile Val Pro Gln Val Gly Cys Glu Val Val Ser Tyr Ala Pro Arg Glu
            85                  90                  95

gtg gaa gac ttc tac acc ctg ttc ggc ggt ttc gaa ggg acc atc gcc        633
Val Glu Asp Phe Tyr Thr Leu Phe Gly Gly Phe Glu Gly Thr Ile Ala
            100                 105                 110

gcg gta gcg gcc tcc cgg cgg acc gag gcc cag ttg ctg gag ctg gac        681
Ala Val Ala Ala Ser Arg Arg Thr Glu Ala Gln Leu Leu Glu Leu Asp
        115                 120                 125

ctg atc tcg gcg cgg gtc gac gcc ctg atc acc tcc cac gac ccg gtg        729
Leu Ile Ser Ala Arg Val Asp Ala Leu Ile Thr Ser His Asp Pro Val
130                 135                 140                 145

gtc cgc gcc cgc ggg tac cgc gtg cac aac cgg gag ttc cat gcg gcc        777
Val Arg Ala Arg Gly Tyr Arg Val His Asn Arg Glu Phe His Ala Ala
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atc cac gcg atg gcg cac tcg cgg atc atg gag gag acc agc cag cga        825
Ile His Ala Met Ala His Ser Arg Ile Met Glu Glu Thr Ser Gln Arg
                165                 170                 175

atg tgg gat ctg tcg gac ttc ttg atc aac acc acc ggc atc acc aac        873
Met Trp Asp Leu Ser Asp Phe Leu Ile Asn Thr Thr Gly Ile Thr Asn
            180                 185                 190

ccg ctc tcg agc gca ctg ccc gac cgg cag cat gac cac cac gaa atc        921
Pro Leu Ser Ser Ala Leu Pro Asp Arg Gln His Asp His His Glu Ile
            195                 200                 205

acc gag gcc atc cgc aac cgt gac gca gct gcc gcc cgc gag gcc atg        969
Thr Glu Ala Ile Arg Asn Arg Asp Ala Ala Ala Ala Arg Glu Ala Met
210                 215                 220                 225
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gaa cgc cac atc gtc ggc acc atc gca gta atc cgc gac gaa tcc aac        1017
Glu Arg His Ile Val Gly Thr Ile Ala Val Ile Arg Asp Glu Ser Asn
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gcc cag ctg ccg agc tag accccgatac ccgggccatc gaccggctcc             1065
Ala Gln Leu Pro Ser
                245

gctatcgcgc acctacgcc gaggggggac tctcggccgt agcgctgcag acgatccacc     1125

ggcaccctcc acgctgaccc ctgtctcgcc ctagagggcc ggcgcgccgt cgatcacctt     1185

taccctcatc cagagacttg cgtcaccctc tatgcccgag tagcgtctga actagacgtc     1245

tagcattcta gttga gtg ctc cct ctc gaa gat tct cca gag aac ccc tct     1296
                  Val Leu Pro Leu Glu Asp Ser Pro Glu Asn Pro Ser
                           250             255

cga aca tcc cca gaa gaa agg agc ggc cat gac gac cgc ttc gca cgc     1344
Arg Thr Ser Pro Glu Glu Arg Ser Gly His Asp Asp Arg Phe Ala Arg
    260                 265                 270

atc gtc ctt cgg ggc acg agc cca ctt ccg ccc aca gat cgg gga agc     1392
Ile Val Leu Arg Gly Thr Ser Pro Leu Pro Pro Thr Asp Arg Gly Ser
275                 280                 285                 290

ccg acc gtg agc acc aca cct acc tcc ccg acg aag acc tca ccg ctg     1440
Pro Thr Val Ser Thr Thr Pro Thr Ser Pro Thr Lys Thr Ser Pro Leu
                295                 300                 305

cgg gta gcg atg gcc agc ttc atc ggt acc acc gtc gag tac tac gac     1488
Arg Val Ala Met Ala Ser Phe Ile Gly Thr Thr Val Glu Tyr Tyr Asp
                310                 315                 320

ttc ttc atc tac ggc acc gcg gcc gcg ctg gta ttc cct gag ttg ttc     1536
Phe Phe Ile Tyr Gly Thr Ala Ala Ala Leu Val Phe Pro Glu Leu Phe
                325                 330                 335

ttc ccg gat gtc tcg tcc gcg atc gga atc ctg ttg tcg ttc gcg acc     1584
Phe Pro Asp Val Ser Ser Ala Ile Gly Ile Leu Leu Ser Phe Ala Thr
    340                 345                 350

ttc agc gtt ggg ttc ctc gcc cgc ccg ctg ggt ggc ata gtg ttc ggg     1632
Phe Ser Val Gly Phe Leu Ala Arg Pro Leu Gly Gly Ile Val Phe Gly
355                 360                 365                 370

cac ttc ggt gac cgg gtc ggc cgc aag cag atg ctg gtg atc tcc ctg     1680
His Phe Gly Asp Arg Val Gly Arg Lys Gln Met Leu Val Ile Ser Leu
                375                 380                 385

gtc gga atg ggc tcg gcc acc gta ctg atg gga ttg ttg ccc ggt tac     1728
Val Gly Met Gly Ser Ala Thr Val Leu Met Gly Leu Leu Pro Gly Tyr
                390                 395                 400
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gcc caa atc ggg atc gcc gcc ccc atc ctg ctg acc ctg ctg cgc ctg        1776
Ala Gln Ile Gly Ile Ala Ala Pro Ile Leu Leu Thr Leu Leu Arg Leu
        405             410                 415

gtg cag ggc ttt gcc gtc ggc ggc gag tgg ggt gga gcc acc ctg atg        1824
Val Gln Gly Phe Ala Val Gly Gly Glu Trp Gly Gly Ala Thr Leu Met
        420             425                 430

gcc gtc gag cac gcc ccc acc gcg aag aag ggc ttt ttc gga tcc ttc        1872
Ala Val Glu His Ala Pro Thr Ala Lys Lys Gly Phe Phe Gly Ser Phe
435             440                 445                 450

tcc cag atg ggg gca ccc gcc ggg acc agc gtc gca acc ctg gcg ttc        1920
Ser Gln Met Gly Ala Pro Ala Gly Thr Ser Val Ala Thr Leu Ala Phe
            455                 460                 465

ttc gcg gtc tcc caa ttg ccc gac gag cag ttc ctg agt tgg ggc tgg        1968
Phe Ala Val Ser Gln Leu Pro Asp Glu Gln Phe Leu Ser Trp Gly Trp
            470                 475                 480

cga ctg ccg ttc ctg ttc agc gcg gtg ctg atc gtg atc ggg ctg ttc        2016
Arg Leu Pro Phe Leu Phe Ser Ala Val Leu Ile Val Ile Gly Leu Phe
            485                 490                 495

att cgc ctg tcc ctg gcc gaa agc ccc gac ttc gcc gag gtg aag gca        2064
Ile Arg Leu Ser Leu Ala Glu Ser Pro Asp Phe Ala Glu Val Lys Ala
        500                 505                 510

cag agc gcc gtg gtg cga atg ccg atc gcc gaa gcg ttc cgc aag cac        2112
Gln Ser Ala Val Val Arg Met Pro Ile Ala Glu Ala Phe Arg Lys His
515                 520                 525                 530

tgg aag gaa att ctc ctc atc gcg ggc acc tac ctg tcc caa gga gtg        2160
Trp Lys Glu Ile Leu Leu Ile Ala Gly Thr Tyr Leu Ser Gln Gly Val
                535                 540                 545

ttc gcc tat atc tgc atg gcc tac ctc gtc tcc tac ggc acc acc gtc        2208
Phe Ala Tyr Ile Cys Met Ala Tyr Leu Val Ser Tyr Gly Thr Thr Val
                550                 555                 560

gcg ggg atc agc cgc acc ttc gcc ctg gcc gga gta ttc gtc gcc ggc        2256
Ala Gly Ile Ser Arg Thr Phe Ala Leu Ala Gly Val Phe Val Ala Gly
            565                 570                 575

atc gtc gcc gtc ctc ctc tac ctc gtg ttc ggc gct ctg tcc gac act        2304
Ile Val Ala Val Leu Leu Tyr Leu Val Phe Gly Ala Leu Ser Asp Thr
            580                 585                 590

ttc ggc cgc aag acc atg tac ctg ctc ggc gcc gcc gcg atg ggt gtg        2352
Phe Gly Arg Lys Thr Met Tyr Leu Leu Gly Ala Ala Ala Met Gly Val
595                 600                 605                 610

gtg atc gcc ccc gcc ttc gca ctg atc aac acc ggc aac ccg tgg ctg        2400
Val Ile Ala Pro Ala Phe Ala Leu Ile Asn Thr Gly Asn Pro Trp Leu
            615                 620                 625
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ttc atg gcc gcg cag gtg ctg gtc ttc gga att gca atg gcc ccc gcc      2448
Phe Met Ala Ala Gln Val Leu Val Phe Gly Ile Ala Met Ala Pro Ala
            630                     635                 640

gcc ggc gtg aca ggc tcc ctg ttc acg atg gtc ttc gac gcg gac gtg      2496
Ala Gly Val Thr Gly Ser Leu Phe Thr Met Val Phe Asp Ala Asp Val
            645                     650                 655

cgc tac agc ggt gtc tct atc ggc tac acc atc tcc cag gtc gcc ggc      2544
Arg Tyr Ser Gly Val Ser Ile Gly Tyr Thr Ile Ser Gln Val Ala Gly
            660                     665                 670

tcc gcg ttc gcc ccg acg atc gcg acc gcc ttg tac gcc tcc acc aac      2592
Ser Ala Phe Ala Pro Thr Ile Ala Thr Ala Leu Tyr Ala Ser Thr Asn
675                     680                     685                 690

acc agc aac tcg atc gtg acc tac ctg ctg atc gtc tcg gcc atc tcg      2640
Thr Ser Asn Ser Ile Val Thr Tyr Leu Leu Ile Val Ser Ala Ile Ser
            695                     700                 705

atc gtc tcg gtg atc ctg ctg ccc ggc ggc tgg ggg cgc aag ggc gct      2688
Ile Val Ser Val Ile Leu Leu Pro Gly Gly Trp Gly Arg Lys Gly Ala
            710                     715                 720

gcg agc cag ctc act cgc gac cag gcc acc tcc aca ccg aaa atg cct      2736
Ala Ser Gln Leu Thr Arg Asp Gln Ala Thr Ser Thr Pro Lys Met Pro
            725                     730                 735

gac acc gaa aca ttt tcg act cgg aca gtt ccg gac acc gca gca tcc      2784
Asp Thr Glu Thr Phe Ser Thr Arg Thr Val Pro Asp Thr Ala Ala Ser
            740                     745                 750

ctg cgc gtc ctc gac aag tga a gtg atg aca gac atg agt gac cac gac    2833
Leu Arg Val Leu Asp Lys        Val Met Thr Asp Met Ser Asp His Asp
755                     760             Val Met Thr Asp     765

cgc acc tcc tac gac acc gac gtc gtg atc gtc ggc ctc ggc ccc gcc      2881
Arg Thr Ser Tyr Asp Thr Asp Val Val Ile Val Gly Leu Gly Pro Ala
770                     775                     780                 785

ggt ggc aca gcg gcg ctt gcc ctg gcc agc tac ggc atc cgc gtt cac      2929
Gly Gly Thr Ala Ala Leu Ala Leu Ala Ser Tyr Gly Ile Arg Val His
            790                     795                 800

gcc gtc tcg atg ttc ccc tgg gtg gcg aac tcg ccg cgc gcg cac atc      2977
Ala Val Ser Met Phe Pro Trp Val Ala Asn Ser Pro Arg Ala His Ile
            805                     810                 815

acc aac cag cgc gcc gtc gaa gtg ctg cgt gac ctg ggc gtc gaa gac      3025
Thr Asn Gln Arg Ala Val Glu Val Leu Arg Asp Leu Gly Val Glu Asp
            820                     825                 830

gag gcg cgc aac tac gcc acc ccg tgg gac cag atg ggc gac acg ctg      3073
Glu Ala Arg Asn Tyr Ala Thr Pro Trp Asp Gln Met Gly Asp Thr Leu
            835                     840                 845
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ttc acc acg agc ctg gcc ggc gag gag atc gtc cgg atg cag acc tgg        3121
Phe Thr Thr Ser Leu Ala Gly Glu Glu Ile Val Arg Met Gln Thr Trp
850             855             860             865

ggt acg ggc gat atc cgc tac ggg gac tac ctg tcc gga agc ccc tgc        3169
Gly Thr Gly Asp Ile Arg Tyr Gly Asp Tyr Leu Ser Gly Ser Pro Cys
            870             875             880

acg atg ctc gac att ccg cag ccc ctg atg gag ccg gtg ctg atc aag        3217
Thr Met Leu Asp Ile Pro Gln Pro Leu Met Glu Pro Val Leu Ile Lys
            885             890             895

aac gcc gcc gaa cgt ggt gcg gtc atc agc ttc aac acc gaa tac ctc        3265
Asn Ala Ala Glu Arg Gly Ala Val Ile Ser Phe Asn Thr Glu Tyr Leu
        900             905             910

gac cac gcc cag gac gag gac ggg gtg acc gtc cgg ttc cgc gac gtc        3313
Asp His Ala Gln Asp Glu Asp Gly Val Thr Val Arg Phe Arg Asp Val
    915             920             925

cgc tcg ggc acc gtg ttc acc cag cga gcc cgc ttc ctg ctc ggt ttc        3361
Arg Ser Gly Thr Val Phe Thr Gln Arg Ala Arg Phe Leu Leu Gly Phe
930             935             940             945

gac ggc gca cga tcg aag atc gcc gaa cag atc ggg ctt ccg ttc gaa        3409
Asp Gly Ala Arg Ser Lys Ile Ala Glu Gln Ile Gly Leu Pro Phe Glu
            950             955             960

ggt gaa ctc gcc cgc gcc ggt acc gcg tac atc ctg ttc aac gcg gac        3457
Gly Glu Leu Ala Arg Ala Gly Thr Ala Tyr Ile Leu Phe Asn Ala Asp
            965             970             975

ctg agc aaa tat gtc gct cat cgg ccg agc atc ttg cac tgg atc gtc        3505
Leu Ser Lys Tyr Val Ala His Arg Pro Ser Ile Leu His Trp Ile Val
        980             985             990

aac tcg aag gcc ggt ttc ggt  gag atc ggc atg ggt  ctg ctg cgc gcg     3553
Asn Ser Lys Ala Gly Phe Gly  Glu Ile Gly Met Gly  Leu Leu Arg Ala
        995             1000            1005

atc  cga ccg tgg gac cag  tgg atc gcc ggc tgg  ggc ttc gac atg        3598
Ile  Arg Pro Trp Asp Gln  Trp Ile Ala Gly Trp  Gly Phe Asp Met
1010            1015            1020

gcg  aac ggc gag ccg gat  gtc tcc gac gac gtt  gtc ctc gaa cag        3643
Ala  Asn Gly Glu Pro Asp  Val Ser Asp Asp Val  Val Leu Glu Gln
1025            1030            1035

atc  cgg acc ctc gtc ggc  gac ccg cac ctg gac  gtc gag atc gtg        3688
Ile  Arg Thr Leu Val Gly  Asp Pro His Leu Asp  Val Glu Ile Val
1040            1045            1050

tcg  agg tcc ttc tgg tac  gtc aac cgg cag tgg  gct gag cac tac        3733
Ser  Arg Ser Phe Trp Tyr  Val Asn Arg Gln Trp  Ala Glu His Tyr
1055            1060            1065
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cag  tcc ggt cga gtg ttc  tgc ggc ggc gac gcg  gtg cac cgg cat        3778
Gln  Ser Gly Arg Val Phe  Cys Gly Gly Asp Ala  Val His Arg His
1070             1075               1080

ccg  ccg agc agc ggg ctg  ggc tcg aac acg tcc  atg cag gac gcg        3823
Pro  Pro Ser Ser Gly Leu  Gly Ser Asn Thr Ser  Met Gln Asp Ala
1085             1090               1095

ttc  aac ctg gca tgg aag  atc gcg ttc gtc gtg  aag ggg tat gca        3868
Phe  Asn Leu Ala Trp Lys  Ile Ala Phe Val Val  Lys Gly Tyr Ala
1100             1105               1110

gga  ccg ggt ctg ctc gag  tcc tac tct cct gag  cgt gtt ccg gtc        3913
Gly  Pro Gly Leu Leu Glu  Ser Tyr Ser Pro Glu  Arg Val Pro Val
1115             1120               1125

ggc  aaa cag atc gtc gct  cgc gcc aac cag tcc  cgc aag gac tac        3958
Gly  Lys Gln Ile Val Ala  Arg Ala Asn Gln Ser  Arg Lys Asp Tyr
1130             1135               1140

gcc  ggg ctg cgc gaa tgg  ttc gat cac gag agc  gac gac ccg gtc        4003
Ala  Gly Leu Arg Glu Trp  Phe Asp His Glu Ser  Asp Asp Pro Val
1145             1150               1155

gcc  gcc ggc ctg gca aag  ttg aag gaa ccc tcg  tcc gaa ggt gtt        4048
Ala  Ala Gly Leu Ala Lys  Leu Lys Glu Pro Ser  Ser Glu Gly Val
1160             1165               1170

gct  ctg cgt gag cgg ctg  tac gag gcg ctg gag  gtg aag aac gcc        4093
Ala  Leu Arg Glu Arg Leu  Tyr Glu Ala Leu Glu  Val Lys Asn Ala
1175             1180               1185

gaa  ttc aac gcc cag ggc  gtc gaa ctc aac cag  cgc tac acc tcg        4138
Glu  Phe Asn Ala Gln Gly  Val Glu Leu Asn Gln  Arg Tyr Thr Ser
1190             1195               1200

tcc  gcg gtc gtt ccc gac  ccc gag gcg ggc gag  gaa gtg tgg gtg        4183
Ser  Ala Val Val Pro Asp  Pro Glu Ala Gly Glu  Glu Val Trp Val
1205             1210               1215

cgc  gat cgt gag ctg tac  ctg cag gcc acc acc  cgg ccg ggc gcg        4228
Arg  Asp Arg Glu Leu Tyr  Leu Gln Ala Thr Thr  Arg Pro Gly Ala
1220             1225               1230

aag  ctg ccg cat gcg tgg  ctg gtc ggc gcc gac  gga acc cgc atc        4273
Lys  Leu Pro His Ala Trp  Leu Val Gly Ala Asp  Gly Thr Arg Ile
1235             1240               1245

tcc  acc ctc gac gtc acc  ggc aag gga atg atg  acc ctg ctg acc        4318
Ser  Thr Leu Asp Val Thr  Gly Lys Gly Met Met  Thr Leu Leu Thr
1250             1255               1260

gga  ctc ggc ggc cag gca  tgg aag cgt gcc gcc  gcc aaa ctc gac        4363
Gly  Leu Gly Gly Gln Ala  Trp Lys Arg Ala Ala  Ala Lys Leu Asp
1265             1270               1275
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ctg  ccg ttc ctg cgg acc  gtc gtt gtc ggc gaa  ccc ggc acc atc      4408
Leu  Pro Phe Leu Arg Thr  Val Val Val Gly Glu  Pro Gly Thr Ile
1280             1285           1290

gac  cct tac gga tac tgg  cgg cgg gtc cgc gac  atc gac gag gcc      4453
Asp  Pro Tyr Gly Tyr Trp  Arg Arg Val Arg Asp  Ile Asp Glu Ala
1295             1300           1305

ggc  gcc ctg ctc gtg cgg  ccc gac ggc tac gtc  gcg tgg cga cac      4498
Gly  Ala Leu Leu Val Arg  Pro Asp Gly Tyr Val  Ala Trp Arg His
1310             1315           1320

agt  gct ccg gtc tgg gac  gac acc gaa gcg ctc  acc agc ctc gag      4543
Ser  Ala Pro Val Trp Asp  Asp Thr Glu Ala Leu  Thr Ser Leu Glu
1325             1330           1335

aac  gct ctc acc gcg gtc  ctc gac cac tcg gcc  agc gac aac ggg      4588
Asn  Ala Leu Thr Ala Val  Leu Asp His Ser Ala  Ser Asp Asn Gly
1340             1345           1350

aac  ccg agc ggc aca aac  gag ccg cag tac agc  acc cgg gcc gtg      4633
Asn  Pro Ser Gly Thr Asn  Glu Pro Gln Tyr Ser  Thr Arg Ala Val
1355             1360           1365

ccg  atc gtc gtt ccg cac  gtt acc gcc gag gat  gca gca cca gct      4678
Pro  Ile Val Val Pro His  Val Thr Ala Glu Asp  Ala Ala Pro Ala
1370             1375           1380

tcc  gcc acc cgc acc acc  aca gtc gag gga gag  aac cga tga          4720
Ser  Ala Thr Arg Thr Thr  Thr Val Glu Gly Glu  Asn Arg
1385             1390           1395

cccgtcctta caccagcgtc tgggacgacc tgaaccaggt cgagttcagc cagggattca   4780

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ccactctcaa cggcatcacg gtgcccgcga tggtgctgtg gaccaccaag gacccctccg   5440

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tggagaactg tggccactgg ccccagtacg aggaccccga gaccttcaac aagctgcatc      5560

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cccgggcggc accggccgga tctcacttac ccgacctatt gcgctctcgt ccggacccccc     5680

ggagagaaag cgccgaagca gcagcaagga gaccgccgcg atg cct gta  gcg ctg       5735
                                            Met Pro Val  Ala Leu
                                                          1400

tgc gcg atg  tcg cac tcc ccc ctg  atg gga cgc aac gac  ccc gaa         5780
Cys Ala Met  Ser His Ser Pro Leu  Met Gly Arg Asn Asp  Pro Glu
         1405                 1410                 1415

cag gaa gtc  atc gac gcc gtc gac  gcc gca ttc gac cac  gcg cgc         5825
Gln Glu Val  Ile Asp Ala Val Asp  Ala Ala Phe Asp His  Ala Arg
         1420                 1425                 1430

cgg ttc gtc  gcc gac ttc gcc ccc  gat ctc atc gtc atc  ttc gcc         5870
Arg Phe Val  Ala Asp Phe Ala Pro  Asp Leu Ile Val Ile  Phe Ala
         1435                 1440                 1445

ccc gac cac  tac aac ggc gtc ttc  tac gac ctg ctg ccg  ccg ttc         5915
Pro Asp His  Tyr Asn Gly Val Phe  Tyr Asp Leu Leu Pro  Pro Phe
         1450                 1455                 1460

tgt atc ggt  gcc gcc gcg cag tcc  gtc ggc gac tac ggc  acc gaa         5960
Cys Ile Gly  Ala Ala Ala Gln Ser  Val Gly Asp Tyr Gly  Thr Glu
         1465                 1470                 1475

gcc ggc cct  ctc gac gtc gac cgt  gac gcc gcc tac gca  gtc gcc         6005
Ala Gly Pro  Leu Asp Val Asp Arg  Asp Ala Ala Tyr Ala  Val Ala
         1480                 1485                 1490

cgc gac gtc  ctc gac agc ggc atc  gac gtc gca ttc tcc  gaa cgc         6050
Arg Asp Val  Leu Asp Ser Gly Ile  Asp Val Ala Phe Ser  Glu Arg
         1495                 1500                 1505

atg cac gtc  gac cac gga ttc gcc  caa gca ctc caa ttg  ctg gtc         6095
Met His Val  Asp His Gly Phe Ala  Gln Ala Leu Gln Leu  Leu Val
         1510                 1515                 1520

gga tcg atc  acc gcc gtg ccg acc  gtg ccg atc ttc atc  aat tcg         6140
Gly Ser Ile  Thr Ala Val Pro Thr  Val Pro Ile Phe Ile  Asn Ser
         1525                 1530                 1535

gtc gcc gaa  ccg ctc ggc ccg gtc  agc cgg gta cgg ctg  ctc ggc         6185
Val Ala Glu  Pro Leu Gly Pro Val  Ser Arg Val Arg Leu  Leu Gly
         1540                 1545                 1550

gag gcg gtc  ggg cgg gcc gct gcc  aag ctg gac aag cgt  gtg ctg         6230
Glu Ala Val  Gly Arg Ala Ala Ala  Lys Leu Asp Lys Arg  Val Leu
         1555                 1560                 1565
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ttc gtc gga  tcc ggc ggc ctg tcc  cac gac ccg ccg gtc  ccg cag      6275
Phe Val Gly  Ser Gly Gly Leu Ser  His Asp Pro Pro Val  Pro Gln
        1570              1575               1580


ttc gcc acc  gcg cca gag gaa gtg  cgc gag cgg ttg atc  gac ggc      6320
Phe Ala Thr  Ala Pro Glu Glu Val  Arg Glu Arg Leu Ile  Asp Gly
        1585              1590               1595



cgc aat ccc  agt gcc gcc gaa cgt  gat gcc cgc gaa cag  cgc gtc      6365
Arg Asn Pro  Ser Ala Ala Glu Arg  Asp Ala Arg Glu Gln  Arg Val
        1600              1605               1610


atc acc gcc  ggg cgg gac ttc gcc  gcc ggc acc gcc gcc  atc cag      6410
Ile Thr Ala  Gly Arg Asp Phe Ala  Ala Gly Thr Ala Ala  Ile Gln
        1615              1620               1625


cca ctg aac  ccc gaa tgg gac cgg  cac ctg ctc gac gtc  ctc gcc      6455
Pro Leu Asn  Pro Glu Trp Asp Arg  His Leu Leu Asp Val  Leu Ala
        1630              1635               1640


tcc ggc gac  ctc gag cag atc gac  gcg tgg acc aac gac  tgg ttc      6500
Ser Gly Asp  Leu Glu Gln Ile Asp  Ala Trp Thr Asn Asp  Trp Phe
        1645              1650               1655


gtc gaa cag  gcc gga cac tcc tcc  cac gaa gtg cgc acc  tgg atc      6545
Val Glu Gln  Ala Gly His Ser Ser  His Glu Val Arg Thr  Trp Ile
        1660              1665               1670


gcc gcg tac  gcg gca atg agc gcc  gcc ggg aag tac cgc  gtc acc      6590
Ala Ala Tyr  Ala Ala Met Ser Ala  Ala Gly Lys Tyr Arg  Val Thr
        1675              1680               1685


tcg acc ttc  tac cgc gaa atc cac  gag tgg ata gca gga  ttc ggg      6635
Ser Thr Phe  Tyr Arg Glu Ile His  Glu Trp Ile Ala Gly  Phe Gly
        1690              1695               1700


att act acc  gcc gtc gcc gtc gac  gaa tag accccgccgc tcccgccccg      6685
Ile Thr Thr  Ala Val Ala Val Asp  Glu
        1705              1710


cagtcccaac gaagggtggc cccggatgac ctccgtccgc ccgtgctcgc cgtcggtgaa      6745

cgcgggctgg tcggtgggca ggaagacctc atcgccgaca tcgccctcga cctcgcagct      6805

cgtcagtagg aatgcgcacg ggccgacgag tcgcgctggt caccgggggcc agccgcggca      6865

tcggggcggc catcgcagat gcggtggccg cctccggtgc cgccgtaatc gtccactacg      6925

gatccgatcg gacggccgcc gctgcggtgt cgacggcatc acggctgccg ggggcctcgc      6985

ggctgcggtc caggccgacc tgtcccgacc cgagggggcct gaagagctga tgcgggagtt      7045

cgactccgcg ctcgacggtc tcgggctcga ccgagggctc gacatcctcg tcaacaacgc      7105

cggaatcagt cggcgcggag cgctcgagcg cgtcactgtc gaggatttcg accgtctggt      7165
```

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cgcactcaac cagcgcgccc cgttcttcgt gactcggcat gccctgcccc ggatgcacga     7225

cggcggtcgc atcgtcaaca tttcctccgg atccgcccgc tacgccagac ccgacgtcat     7285

cagctacgcc atgaccaagg gggcgatcga ggtgctcacc cgcgccctcg ccgtagacgt     7345

cggcgaacga ggcatcaccg ccaacgccgt ggcgccggcc gcgctcgata ccgacatgaa     7405

cgcgcactgg cttcgcggtg acgaccatgc ccgcaccacc gccgcgtcca ccactgcact     7465

gcgaaaactc gccaccgcgg aggacatcgc cgcgatcgtg gccttcctcg tcagcgccgc     7525

cgccggtgcg atcaccgggc aggtcatcga cgccaccaac ggcaaccggc tctaaccaga     7585

acttacccgg tccc                                                       7599
```

\<210\> 2
\<211\> 246
\<212\> PRT
\<213\> Rhodococcus sp.

\<400\> 2

```
Met Thr Thr Thr Asp Thr Gly Pro Lys Pro Gly Ser Glu Ala Ala Ala
1               5                  10                  15


Leu Leu Ala Asn Val Arg Thr Ser Gly Ala Arg Leu Ser Ser Ala Leu
            20                  25                  30


Tyr Asp Ile Leu Lys Asn Arg Leu Leu Glu Gly Arg Tyr Ala Ala Gly
            35                  40                  45


Glu Lys Ile Val Val Glu Ser Ile Arg Gln Glu Phe Gly Val Ser Lys
        50                  55                  60


Gln Pro Val Met Asp Ala Leu Arg Arg Leu Ser Ser Asp Lys Leu Val
65                  70                  75                  80


His Ile Val Pro Gln Val Gly Cys Glu Val Val Ser Tyr Ala Pro Arg
                85                  90                  95


Glu Val Glu Asp Phe Tyr Thr Leu Phe Gly Gly Phe Glu Gly Thr Ile
                100                 105                 110


Ala Ala Val Ala Ala Ser Arg Arg Thr Glu Ala Gln Leu Leu Glu Leu
            115                 120                 125
```

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Asp Leu Ile Ser Ala Arg Val Asp Ala Leu Ile Thr Ser His Asp Pro
    130   135   140

Val Val Arg Ala Arg Gly Tyr Arg Val His Asn Arg Glu Phe His Ala
145   150   155   160

Ala Ile His Ala Met Ala His Ser Arg Ile Met Glu Glu Thr Ser Gln
                165   170   175

Arg Met Trp Asp Leu Ser Asp Phe Leu Ile Asn Thr Thr Gly Ile Thr
            180   185   190

Asn Pro Leu Ser Ser Ala Leu Pro Asp Arg Gln His Asp His His Glu
        195   200   205

Ile Thr Glu Ala Ile Arg Asn Arg Asp Ala Ala Ala Ala Arg Glu Ala
    210   215   220

Met Glu Arg His Ile Val Gly Thr Ile Ala Val Ile Arg Asp Glu Ser
225   230   235   240

Asn Ala Gln Leu Pro Ser
            245

<210>   3
<211>   514
<212>   PRT
<213>   Rhodococcus sp.

<400>   3

Val Leu Pro Leu Glu Asp Ser Pro Glu Asn Pro Ser Arg Thr Ser Pro
1   5   10   15

Glu Glu Arg Ser Gly His Asp Asp Arg Phe Ala Arg Ile Val Leu Arg
            20   25   30

Gly Thr Ser Pro Leu Pro Pro Thr Asp Arg Gly Ser Pro Thr Val Ser
            35   40   45

Thr Thr Pro Thr Ser Pro Thr Lys Thr Ser Pro Leu Arg Val Ala Met
    50   55   60

Ala Ser Phe Ile Gly Thr Thr Val Glu Tyr Tyr Asp Phe Phe Ile Tyr
65   70   75   80

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```
Gly Thr Ala Ala Ala Leu Val Phe Pro Glu Leu Phe Phe Pro Asp Val
            85              90              95


Ser Ser Ala Ile Gly Ile Leu Leu Ser Phe Ala Thr Phe Ser Val Gly
            100             105             110


Phe Leu Ala Arg Pro Leu Gly Gly Ile Val Phe Gly His Phe Gly Asp
            115             120             125


Arg Val Gly Arg Lys Gln Met Leu Val Ile Ser Leu Val Gly Met Gly
    130             135             140


Ser Ala Thr Val Leu Met Gly Leu Leu Pro Gly Tyr Ala Gln Ile Gly
145             150             155             160


Ile Ala Ala Pro Ile Leu Leu Thr Leu Leu Arg Leu Val Gln Gly Phe
            165             170             175


Ala Val Gly Gly Glu Trp Gly Gly Ala Thr Leu Met Ala Val Glu His
            180             185             190


Ala Pro Thr Ala Lys Lys Gly Phe Phe Gly Ser Phe Ser Gln Met Gly
            195             200             205


Ala Pro Ala Gly Thr Ser Val Ala Thr Leu Ala Phe Phe Ala Val Ser
    210             215             220


Gln Leu Pro Asp Glu Gln Phe Leu Ser Trp Gly Trp Arg Leu Pro Phe
225             230             235             240


Leu Phe Ser Ala Val Leu Ile Val Ile Gly Leu Phe Ile Arg Leu Ser
            245             250             255


Leu Ala Glu Ser Pro Asp Phe Ala Glu Val Lys Ala Gln Ser Ala Val
            260             265             270


Val Arg Met Pro Ile Ala Glu Ala Phe Arg Lys His Trp Lys Glu Ile
    275             280             285


Leu Leu Ile Ala Gly Thr Tyr Leu Ser Gln Gly Val Phe Ala Tyr Ile
    290             295             300
```

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```
Cys Met Ala Tyr Leu Val Ser Tyr Gly Thr Thr Val Ala Gly Ile Ser
305                 310                 315                 320

Arg Thr Phe Ala Leu Ala Gly Val Phe Val Ala Gly Ile Val Ala Val
                325                 330                 335

Leu Leu Tyr Leu Val Phe Gly Ala Leu Ser Asp Thr Phe Gly Arg Lys
                340                 345                 350

Thr Met Tyr Leu Leu Gly Ala Ala Ala Met Gly Val Val Ile Ala Pro
            355                 360                 365

Ala Phe Ala Leu Ile Asn Thr Gly Asn Pro Trp Leu Phe Met Ala Ala
    370                 375                 380

Gln Val Leu Val Phe Gly Ile Ala Met Ala Pro Ala Ala Gly Val Thr
385                 390                 395                 400

Gly Ser Leu Phe Thr Met Val Phe Asp Ala Asp Val Arg Tyr Ser Gly
                405                 410                 415

Val Ser Ile Gly Tyr Thr Ile Ser Gln Val Ala Gly Ser Ala Phe Ala
                420                 425                 430

Pro Thr Ile Ala Thr Ala Leu Tyr Ala Ser Thr Asn Thr Ser Asn Ser
            435                 440                 445

Ile Val Thr Tyr Leu Leu Ile Val Ser Ala Ile Ser Ile Val Ser Val
    450                 455                 460

Ile Leu Leu Pro Gly Gly Trp Gly Arg Lys Gly Ala Ala Ser Gln Leu
465                 470                 475                 480

Thr Arg Asp Gln Ala Thr Ser Thr Pro Lys Met Pro Asp Thr Glu Thr
            485                 490                 495

Phe Ser Thr Arg Thr Val Pro Asp Thr Ala Ala Ser Leu Arg Val Leu
            500                 505                 510

Asp Lys
```

<210> 4
<211> 637
<212> PRT
<213> Rhodococcus sp.

<400> 4

Val Met Thr Asp Met Ser Asp His Asp Arg Thr Ser Tyr Asp Thr Asp
1   5   10   15

Val Val Ile Val Gly Leu Gly Pro Ala Gly Gly Thr Ala Ala Leu Ala
            20   25   30

Leu Ala Ser Tyr Gly Ile Arg Val His Ala Val Ser Met Phe Pro Trp
            35   40   45

Val Ala Asn Ser Pro Arg Ala His Ile Thr Asn Gln Arg Ala Val Glu
        50   55   60

Val Leu Arg Asp Leu Gly Val Glu Asp Glu Ala Arg Asn Tyr Ala Thr
65   70   75   80

Pro Trp Asp Gln Met Gly Asp Thr Leu Phe Thr Thr Ser Leu Ala Gly
                85   90   95

Glu Glu Ile Val Arg Met Gln Thr Trp Gly Thr Gly Asp Ile Arg Tyr
            100   105   110

Gly Asp Tyr Leu Ser Gly Ser Pro Cys Thr Met Leu Asp Ile Pro Gln
            115   120   125

Pro Leu Met Glu Pro Val Leu Ile Lys Asn Ala Ala Glu Arg Gly Ala
        130   135   140

Val Ile Ser Phe Asn Thr Glu Tyr Leu Asp His Ala Gln Asp Glu Asp
145   150   155   160

Gly Val Thr Val Arg Phe Arg Asp Val Arg Ser Gly Thr Val Phe Thr
                165   170   175

Gln Arg Ala Arg Phe Leu Leu Gly Phe Asp Gly Ala Arg Ser Lys Ile
            180   185   190

Ala Glu Gln Ile Gly Leu Pro Phe Glu Gly Glu Leu Ala Arg Ala Gly
        195   200   205

Thr Ala Tyr Ile Leu Phe Asn Ala Asp Leu Ser Lys Tyr Val Ala His
        210   215   220

Arg Pro Ser Ile Leu His Trp Ile Val Asn Ser Lys Ala Gly Phe Gly
225   230   235   240

Glu Ile Gly Met Gly Leu Leu Arg Ala Ile Arg Pro Trp Asp Gln Trp
                245   250   255

Ile Ala Gly Trp Gly Phe Asp Met Ala Asn Gly Glu Pro Asp Val Ser
                260   265   270

Asp Asp Val Val Leu Glu Gln Ile Arg Thr Leu Val Gly Asp Pro His
        275   280   285

Leu Asp Val Glu Ile Val Ser Arg Ser Phe Trp Tyr Val Asn Arg Gln
        290   295   300

Trp Ala Glu His Tyr Gln Ser Gly Arg Val Phe Cys Gly Gly Asp Ala
305   310   315   320

Val His Arg His Pro Pro Ser Ser Gly Leu Gly Ser Asn Thr Ser Met
                325   330   335

Gln Asp Ala Phe Asn Leu Ala Trp Lys Ile Ala Phe Val Val Lys Gly
                340   345   350

Tyr Ala Gly Pro Gly Leu Leu Glu Ser Tyr Ser Pro Glu Arg Val Pro
                355   360   365

Val Gly Lys Gln Ile Val Ala Arg Ala Asn Gln Ser Arg Lys Asp Tyr
        370   375   380

Ala Gly Leu Arg Glu Trp Phe Asp His Glu Ser Asp Asp Pro Val Ala
385   390   395   400

Ala Gly Leu Ala Lys Leu Lys Glu Pro Ser Ser Glu Gly Val Ala Leu
                405   410   415

```
Arg Glu Arg Leu Tyr Glu Ala Leu Glu Val Lys Asn Ala Glu Phe Asn
        420             425             430

Ala Gln Gly Val Glu Leu Asn Gln Arg Tyr Thr Ser Ser Ala Val Val
        435             440             445

Pro Asp Pro Glu Ala Gly Glu Glu Val Trp Val Arg Asp Arg Glu Leu
    450             455             460

Tyr Leu Gln Ala Thr Thr Arg Pro Gly Ala Lys Leu Pro His Ala Trp
465             470             475             480

Leu Val Gly Ala Asp Gly Thr Arg Ile Ser Thr Leu Asp Val Thr Gly
            485             490             495

Lys Gly Met Met Thr Leu Leu Thr Gly Leu Gly Gly Gln Ala Trp Lys
        500             505             510

Arg Ala Ala Ala Lys Leu Asp Leu Pro Phe Leu Arg Thr Val Val Val
        515             520             525

Gly Glu Pro Gly Thr Ile Asp Pro Tyr Gly Tyr Trp Arg Arg Val Arg
    530             535             540

Asp Ile Asp Glu Ala Gly Ala Leu Leu Val Arg Pro Asp Gly Tyr Val
545             550             555             560

Ala Trp Arg His Ser Ala Pro Val Trp Asp Asp Thr Glu Ala Leu Thr
            565             570             575

Ser Leu Glu Asn Ala Leu Thr Ala Val Leu Asp His Ser Ala Ser Asp
        580             585             590

Asn Gly Asn Pro Ser Gly Thr Asn Glu Pro Gln Tyr Ser Thr Arg Ala
        595             600             605

Val Pro Ile Val Val Pro His Val Thr Ala Glu Asp Ala Ala Pro Ala
    610             615             620

Ser Ala Thr Arg Thr Thr Thr Val Glu Gly Glu Asn Arg
625             630             635
```

<210> 5
<211> 314
<212> PRT
<213> Rhodococcus sp.

<400> 5

Met Pro Val Ala Leu Cys Ala Met Ser His Ser Pro Leu Met Gly Arg
1   5   10   15

Asn Asp Pro Glu Gln Glu Val Ile Asp Ala Val Asp Ala Ala Phe Asp
            20   25   30

His Ala Arg Arg Phe Val Ala Asp Phe Ala Pro Asp Leu Ile Val Ile
            35   40   45

Phe Ala Pro Asp His Tyr Asn Gly Val Phe Tyr Asp Leu Leu Pro Pro
        50   55   60

Phe Cys Ile Gly Ala Ala Ala Gln Ser Val Gly Asp Tyr Gly Thr Glu
65   70   75   80

Ala Gly Pro Leu Asp Val Asp Arg Asp Ala Ala Tyr Ala Val Ala Arg
                85   90   95

Asp Val Leu Asp Ser Gly Ile Asp Val Ala Phe Ser Glu Arg Met His
            100   105   110

Val Asp His Gly Phe Ala Gln Ala Leu Gln Leu Leu Val Gly Ser Ile
        115   120   125

Thr Ala Val Pro Thr Val Pro Ile Phe Ile Asn Ser Val Ala Glu Pro
    130   135   140

Leu Gly Pro Val Ser Arg Val Arg Leu Leu Gly Glu Ala Val Gly Arg
145   150   155   160

Ala Ala Ala Lys Leu Asp Lys Arg Val Leu Phe Val Gly Ser Gly Gly
                165   170   175

Leu Ser His Asp Pro Pro Val Pro Gln Phe Ala Thr Ala Pro Glu Glu
            180   185   190

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Val Arg Glu Arg Leu Ile Asp Gly Arg Asn Pro Ser Ala Ala Glu Arg
        195   200   205

Asp Ala Arg Glu Gln Arg Val Ile Thr Ala Gly Arg Asp Phe Ala Ala
        210   215   220

Gly Thr Ala Ala Ile Gln Pro Leu Asn Pro Glu Trp Asp Arg His Leu
225   230   235   240

Leu Asp Val Leu Ala Ser Gly Asp Leu Glu Gln Ile Asp Ala Trp Thr
                245   250   255

Asn Asp Trp Phe Val Glu Gln Ala Gly His Ser Ser His Glu Val Arg
            260   265   270

Thr Trp Ile Ala Ala Tyr Ala Ala Met Ser Ala Ala Gly Lys Tyr Arg
        275   280   285

Val Thr Ser Thr Phe Tyr Arg Glu Ile His Glu Trp Ile Ala Gly Phe
        290   295   300

Gly Ile Thr Thr Ala Val Ala Val Asp Glu
305   310

<210> 6
<211> 289
<212> PRT
<213> Rhodococcus sp.

<400> 6

Met Thr Arg Pro Tyr Thr Ser Val Trp Asp Asp Leu Asn Gln Val Glu
1   5   10   15

Phe Ser Gln Gly Phe Ile Gln Ala Gly Pro Tyr Arg Thr Arg Tyr Leu
        20   25   30

His Ala Gly Asp Ser Ser Lys Pro Thr Leu Ile Leu Leu His Gly Ile
        35   40   45

Thr Gly His Ala Glu Ala Tyr Val Arg Asn Leu Arg Ser His Ser Glu
    50   55   60

His Phe Asn Val Trp Ala Ile Asp Phe Ile Gly His Gly Tyr Ser Thr
65   70   75   80

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Lys Pro Asp His Pro Leu Glu Ile Lys His Tyr Ile Asp His Val Leu
                85   90   95

Gln Leu Leu Asp Ala Ile Gly Val Glu Lys Ala Ser Phe Ser Gly Glu
                100   105   110

Ser Leu Gly Gly Trp Val Thr Ala Gln Phe Ala His Asp His Pro Glu
                115   120   125

Lys Val Asp Arg Ile Val Leu Asn Thr Met Gly Gly Thr Met Ala Asn
    130   135   140

Pro Gln Val Met Glu Arg Leu Tyr Thr Leu Ser Met Glu Ala Ala Lys
145   150   155   160

Asp Pro Ser Trp Glu Arg Val Lys Ala Arg Leu Glu Trp Leu Met Ala
                165   170   175

Asp Pro Thr Met Val Thr Asp Asp Leu Ile Arg Thr Arg Gln Ala Ile
                180   185   190

Phe Gln Gln Pro Asp Trp Leu Lys Ala Cys Glu Met Asn Met Ala Leu
                195   200   205

Gln Asp Leu Glu Thr Arg Lys Arg Asn Met Ile Thr Asp Ala Thr Leu
    210   215   220

Asn Gly Ile Thr Val Pro Ala Met Val Leu Trp Thr Thr Lys Asp Pro
225   230   235   240

Ser Gly Pro Val Asp Glu Ala Lys Arg Ile Ala Ser His Ile Pro Gly
                245   250   255

Ala Lys Leu Ala Ile Met Glu Asn Cys Gly His Trp Pro Gln Tyr Glu
                260   265   270

Asp Pro Glu Thr Phe Asn Lys Leu His Leu Asp Phe Leu Leu Gly Arg
                275   280   285

Ser

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<210>
<211>
<212>
<213>

<400>   7

000


<210>   8
<211>   27
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   OHPR3

<400>   8
atcgaattcg gatccatgac caccacc                                    27


<210>   9
<211>   44
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   OHPR4

<400>   9
atcgcggccg ctctagacta actgcagggc gccaagctcg gcag                 44


<210>   10
<211>   24
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   C11

<400>   10
atcgaattcg gatccacgag agag                                       24


<210>   11
<211>   29
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   C12

<400>   11
atccggccgc gctctagagt acgcaagct                                  29
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<210>   12
<211>   20
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   op1

<400>   12
atcctcgaga ccccgatacc                                              20


<210>   13
<211>   17
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   op2

<400>   13
atcgtcgacc gctaccc                                                 17


<210>   14
<211>   50
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   CaMVop2

<400>   14
tccactgacg taagggatga cgcacaatcc cactatcctt cgcaagaccc            50


<210>   15
<211>   50
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   CaMVop3

<400>   15
atgctagacg tctagttcag acgctactta tatagaggaa gggtcttgcg            50


<210>   16
<211>   45
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   CaMVop4
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<400> 16
cgtctagcat tctagttgag gaagttcatt tcatttggag aggac   45

<210> 17
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> CaMVopF1

<400> 17
atcgatatct ccactgacgt aag   23

<210> 18
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> CaMVopR1

<400> 18
gatggatccg tcctctccaa atga   24

<210> 19
<211> 470
<212> DNA
<213> Artificial Sequence

<220>
<223> Chimeric promoter

<400> 19
catgcctgca ggtcaacatg gtggagcacg acactctcgt ctactccaag aatatcaaag   60

atacagtctc agaagaccag agggctattg agacttttca acaaagggta atatcgggaa   120

acctcctcgg attccattgc ccagctatct gtcacttcat cgaaaggaca gtagaaaagg   180

aagatggctt ctacaaatgc catcattgcg ataaaggaaa ggctatcgtt caagaatgcc   240

tctaccgaca gtggtcccaa agatgtaccc ccacccacga ggaacatcgt ggaaaaagaa   300

gacgttccaa ccacgtcttc aaagcaagtg gattgatgtg atatctccac tgacgtaagg   360

gatgacgcac aatcccacta tccttcgcaa gacccttcct ctatataagt agcgtctgaa   420

ctagacgtct agcattctag ttgaggaagt tcatttcatt tggagaggac   470